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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,264	12/16/2004	Arnoldus Werner Oomen	2167.065USI	6693
21186 7590 10/18/2010 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER SU, SARAH	
			ART UNIT 2431	PAPER NUMBER
			NOTIFICATION DATE 10/18/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/518,264	Applicant(s) OOMEN ET AL.	
	Examiner Sarah Su	Art Unit 2431	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-11 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/28/10, 10/4/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 July 2010 has been entered. In this amendment, claims 1, 11, and 15 have been amended.
2. Claims 1, 3-11, and 15 are presented for examination.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 3-11, and 15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 3-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Based upon consideration of all of the relevant factors with respect to the claim as a whole, claim(s) 1 and 3-10 are held to claim an abstract idea, and is/are therefore rejected as ineligible subject matter under 35 U.S.C. 101. The rationale for this finding

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is explained below: Claims 1 and 3-10 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. The instant claims are neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter, and therefore do not qualify as a statutory process. The generating method including steps of receiving, selectively reading, calculating, and deriving is broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent.

Claim 11 is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Claim 11 recites "A computer readable medium" which typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media. Therefore, claim 11 is considered to be non-statutory. It is noted that adding the limitation "non-transitory" to the claim would exclude transitory propagating signals *per se* and would thus make the claim statutory.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3-5, 8, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (US Patent 6,674,874 B1 and Yoshida hereinafter) and

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in view of Hampapur et al. (US 2001/0003468 A1 and Hampapur hereinafter) and further in view of Davis (US Patent 5,907,619).

As to claims 1, 11, and 15, Yoshida discloses a system and method for data processing for embedding watermarks, the system and method having:

receiving a bit-stream comprising a compressed multimedia signal to be divided into a plurality of time frames (col. 12, lines 59-60);

calculating a separate hash word from said parameters for each time frame to provide a set of hash words over a period of time encompassed by the plurality of time frames (col. 12, lines 62-64).

Yoshida fails to specifically disclose:

selectively reading from the bit-stream predetermined parameters in the plurality of time frames, wherein said predetermined parameters relate to perceptual information of the multimedia signal;

deriving a hash function by a concatenation of the set of hash words.

Nonetheless, these features are well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida, as taught by Hampapur.

Hampapur discloses a system and method for detecting scene changes in a digital video stream, the system and method having:

selectively reading (i.e. extracting) from the bit-stream predetermined parameters (i.e. metadata) in the plurality of time frames, wherein said predetermined parameters relate to perceptual information (i.e. visual representation) of the multimedia signal (0006, lines 6-8; 0040, lines 2-7).

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Given the teaching of Hampapur, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida with the teachings of Hampapur by reading information that is related to perceptual data. Hampapur recites motivation by disclosing that automatically selecting representative data would reduce labor (0006, lines 4-6). It is obvious that the teachings of Hampapur would have improved the teachings of Yoshida by reading information related to perceptual information in order to reduce labor.

Yoshida in view of Hampapur fails to specifically disclose:

deriving a hash function by a concatenation of the set of hash words.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida in view of Hampapur, as taught by Davis.

Davis discloses a system and method for compressing and digitally signing compressed video data, the system and method having:

deriving a hash function by a concatenation of the set of hash words

(col. 6, lines 33-35).

Given the teaching of Davis, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida in view of Hampapur with the teachings of Davis by generating concatenated hashes. Davis recites motivation by disclosing that providing

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concatenated data of a divided and hashed image allows for the receiving device to authenticate the data before the entire image has been received (col. 2, lines 8-12). It is obvious that the teachings of Davis would have improved the teachings of Yoshida in view of Hampapur by concatenating hashes in order to allow a receiver to authenticate a received portion of data without receiving the entire data.

As to claim 3, Yoshida discloses:

where the multimedia signal comprises at least one of an audio signal, a video signal and an image signal (col. 3, lines 33-35).

As to claim 4, Yoshida discloses:

where the multimedia signal has been compressed using at least one of transform encoding, subband encoding and parametric encoding (col. 2, lines 24-30).

As to claim 5, Yoshida fails to specifically disclose:

where the predetermined parameters relate to at least one of the energies of frequency bands; the amplitudes of frequency bands; the tonality of frequency bands; the luminance of an area of a video signal; and the chrominance of an area of a video signal.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida, as taught by Hampapur.

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Hampapur discloses:

where the predetermined parameters relate to at least one of the energies of frequency bands; the amplitudes of frequency bands; the tonality of frequency bands; the luminance of an area of a video signal; and the chrominance of an area of a video signal (0069, lines 3-7).

Given the teaching of Hampapur, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida with the teachings of Hampapur by using data related to the chrominance of an area. Hampapur recites motivation by disclosing that measuring chrominance distance can be used to determine the difference between frames (0069, lines 1-3). It is obvious that the teachings of Hampapur would have improved the teachings of Yoshida by using data related to chrominance in order to determine the difference between data frames.

As to claim 8, Yoshida discloses:

locating said predetermined parameters within the bit-stream by using a syntax description (col. 10, lines 58-59);
reading the located predetermined parameters (col. 10, lines 59-62);
decoding the predetermined parameter using the decoder description (col. 12, lines 62-63).

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7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hampapur and Davis as applied to claim 1 above, and further in view of Makiyama et al. (US Patent 6,687,409 B1 and Makiyama hereinafter).

As to claim 6, Yoshida in view of Hampapur and Davis fails to specifically disclose:

analyzing the received bit-stream in order to determine the decoding scheme used to compress the multimedia signal.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida in view of Hampapur and Davis, as taught by Makiyama.

Makiyama discloses a system and method for decoding using tool information for constructing a decoding algorithm, the system and method having:

analyzing the received bit-stream in order to determine the decoding scheme used to compress the multimedia signal (col. 2, lines 14-22; col. 4, lines 47-50; col. 12, lines 5-7).

Given the teaching of Makiyama, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida in view of Hampapur and Davis with the teachings of Makiyama by analyzing data to determine a decoding scheme. Makiyama recites motivation by disclosing that being able to select the coding scheme based on input data allows performing a coding process in conformity with the determined coding scheme (col. 12, lines 8-11). It is obvious that the teachings of Makiyama would have

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improved the teachings of Yoshida in view of Hampapur and Davis by analyzing data in order to allow selection of an appropriate coding scheme.

As to claim 7, Yoshida in view of Hampapur and Davis fails to specifically disclose:

wherein said analyzing step comprises comparing the properties of the bit-stream with a database containing properties of a number of coding schemes.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida in view of Hampapur and Davis, as taught by Makiyama.

Makiyama discloses:

wherein said analyzing step comprises comparing the properties of the bit-stream with a database containing properties of a number of coding schemes (col. 2, lines 14-22; col. 4, lines 47-50; col. 12, lines 5-7).

Given the teaching of Makiyama, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida in view of Hampapur and Davis with the teachings of Makiyama by comparing data with coding schemes in a database. Makiyama recites motivation by disclosing that being able to select the coding scheme based on input data allows for performing a coding process in conformity with the determined coding scheme (col. 12, lines 8-11). It is obvious that the teachings of Makiyama would have improved the teachings of Yoshida in view of Hampapur and Davis by comparing input

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data with coding scheme data in a database in order to allow selection of an appropriate coding scheme.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hampapur and Davis as applied to claim 1 above, and further in view of Krapp et al. (US 2002/0169934 A1 and Krapp hereinafter).

As to claim 9, Yoshida in view of Hampapur and Davis fails to specifically disclose:

where the predetermined parameters relate to a first set of frequency bands and wherein the step of deriving the hash function comprises deriving estimates of values of spectral information present in a second set of frequency bands from the predetermined parameters, the hash function subsequently being calculated from the estimated value.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida in view of Hampapur and Davis, as taught by Krapp.

Krapp discloses a system and method for eliminating data redundancies, the system and method having:

where the predetermined parameters relate to a first set of frequency bands and wherein the step of deriving the hash function comprises deriving estimates of values of spectral information present in a second set of frequency bands from the predetermined parameters, the hash function subsequently being calculated from the estimated value (0064, lines 4-14).

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Given the teaching of Krapp, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida in view of Hampapur and Davis with the teachings of Krapp by calculating a hash function based on spectral information. Krapp recites motivation by disclosing that any suitable data block identifier can be calculated in order to ensure accuracy of transmitted data (0063, lines 1-5; 0064, lines 1-2). It is obvious that the teachings of Krapp would have improved the teachings of Yoshida in view of Hampapur and Davis by calculating a hash based on spectral information in order to ensure the accuracy of transmitted data.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida in view of Hampapur and Davis as applied to claim 1 above, and further in view of Levine (US Patent 6,266,644 B1).

As to claim 10, Yoshida in view of Hampapur and Davis fails to specifically disclose:

where the multimedia signal is compressed using a parametric encoding scheme and where the predetermined parameters relate to at least one of the sinusoidal components, the noise components and the transient components utilized within the parametric scheme.

Nonetheless, this feature is well known in the art and would have been an obvious modification of the teachings disclosed by Yoshida in view of Hampapur and Davis, as taught by Levine.

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Levine discloses a system and method for audio encoding, the system and method having:

where the multimedia signal is compressed using a parametric encoding scheme and where the predetermined parameters relate to at least one of the sinusoidal components, the noise components and the transient components utilized within the parametric scheme (col. 1, lines 11-20; col. 2, lines 15-16, 29-31).

Given the teaching of Levine, a person having ordinary skill in the art at the time of the invention would have readily recognized the desirability and advantages of modifying the teachings of Yoshida in view of Hampapur and Davis with the teachings of Levine by compressing a signal according to an encoding scheme based on sinusoidal components. Levine recites motivation by disclosing that minimizing the amount of encoded data preserves available storage, throughput, and bandwidth for other uses (col. 1, lines 30-32). It is obvious that the teachings of Levine would have improved the teachings of Yoshida in view of Hampapur and Davis by compressing a signal according to an encoding scheme in order to preserve resources.

Prior Art Made of Record

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Huh et al. (US 2007/0064939 A1) discloses a system and method for protecting broadcast frame.

- b. Piersol (US 2010/0088517 A1) discloses a system and method for logging based identification.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah Su whose telephone number is (571) 270-3835. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Kaveh Abrishamkar/

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